

Amendments to the Claims

1. (currently amended) A method for migrating one or more data files stored on a source storage device to a target storage device, comprising:

receiving from a host device a ~~data processing~~ request specifying a data file;

examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file; and

copying the source data file from the source storage device to the target storage device, based at least in part on information in the pointer.

2. (currently amended) The method of claim 1, further comprising:
retrieving requested data from the copied data file; and
providing the requested data to the host device.

3. (original) The method of claim 1, wherein the source data file is stored in a file volume on the source storage device.

4. (original) The method of claim 1, wherein the stub file is stored in a file volume on the target storage device.

5. (original) The method of claim 1, wherein the target storage device comprises a NAS filer.

6. (original) The method of claim 1, wherein the target storage device comprises a file server.

7. (currently amended) The method of claim 1, wherein the ~~data processing~~ request is received from the host device via a network.

8. (currently amended) The method of claim 1, wherein the pointer identifies a logical location of the source data file in ~~the~~ a source file volume stored on the source storage device.

9. (currently amended) The method of claim 1, wherein the pointer identifies a physical location of the source data file on the source storage ~~system~~ device.

10. (original) The method of claim 1, further comprising replacing the stub file with the copied data file.

11. (currently amended) A method for migrating one or more data files stored on a source storage device to a target storage device, comprising:

receiving from a host device a ~~data processing~~ request specifying a data file;

examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file;

determining a size of the source data file; and

copying the source data file from the source storage device to the target storage device based at least in part on information in the pointer and on the size of the source data file, if the size of the source data file does not exceed a predetermined limit.

12. (original) The method of claim 11, wherein the source data file is stored in a file volume on the source storage device.

13. (original) The method of claim 11, wherein the stub file is stored in a file volume on the target storage device.

14. (original) The method of claim 11, wherein the target storage device comprises a NAS filer.

15. (original) The method of claim 11, wherein the target storage device comprises a file server.

16. (currently amended) The method of claim 11, wherein the ~~data processing~~ request is received from the host device via a network.

17. (currently amended) The method of claim 11, wherein the pointer identifies a logical location of the source data file in a source file volume stored on the source file volume storage device.

18. (original) The method of claim 11, wherein the pointer identifies a physical location of the source data file on the source storage system.

19. (currently amended) A method for migrating one or more data files stored on a source storage device storing a plurality of source data files, to a target storage device, comprising:

storing in a target storage device a plurality of target data files corresponding respectively to respective ones of a plurality of source data files stored in a source storage device;

storing in each respective target data file information identifying the corresponding source data file;

activating a migration procedure to copy data from the source storage device to the target storage device, after target data files have been stored for all source data files in the plurality;

receiving from a host device a data processing request specifying a data file, while the migration procedure is executing;

examining a stub, in a target data file stored on the target storage device that corresponds corresponding to the specified data file, wherein the stub file contains a pointer selected

information identifying a source data file ~~stored on the source storage device that corresponds to the specified data file;~~

retrieving requested data ~~from the source data file;~~ and
providing the requested data to the host device.

20. (original) The method of claim 19, wherein the source data file is stored in a file volume on the source storage device.

21. (currently amended) The method of claim 19, wherein the ~~sub~~ target data file is stored in a file volume on the target storage device.

22. (original) The method of claim 19, wherein the target storage device comprises a NAS filer.

23. (original) The method of claim 19, wherein the target storage device comprises a file server.

24. (currently amended) The method of claim 19, wherein the ~~data processing~~ request is received from the host device via a network.

25. (currently amended) The method of claim 19, wherein the pointer selected information in a respective target data file identifies a logical location of the corresponding source data file in a source file volume stored on the source storage device.

26. (original) The method of claim 19, wherein the pointer selected information in a respective target data file identifies a physical location of the corresponding source data file on the source storage system device.

27. (currently amended) A method for migrating one or more data files stored on a source storage device, to a target storage device, comprising:

generating a target file directory in a target storage device based on a source file directory associated with a set of source data files stored in a source storage device;

storing in the target storage device a respective target data file corresponding to each respective source data file in the set;

storing in each respective target data file first information identifying the corresponding source data file;

receiving from a host device a request specifying a data file;

copying from the source storage device to the target storage device second information concerning rights of users to access the source data files;

accessing a target data file stored on the target storage device, wherein the target file is a stub file that contains a pointer identifying a source data file stored on the source storage device corresponding to the specified data file;

examining first information in the accessed target data file identifying a source data file;
and
copying the identified source data file to the target storage device.

28. (original) The method of claim 27, wherein the source data file is stored in a file volume on the source storage device.

29. (currently amended) The method of claim 27, wherein the ~~stub~~ target data file is stored in a file volume on the target storage device.

30. (original) The method of claim 27, wherein the target storage device comprises a NAS filer.

31. (original) The method of claim 27, wherein the target storage device comprises a file server.

32. (currently amended) The method of claim 27, wherein the ~~pointer~~ first information in a respective target data file identifies a logical location of the corresponding source data file in a source file volume stored on the source storage device.

33. (currently amended) The method of claim 27, wherein the ~~pointer~~ first information in a respective target data file identifies a physical location of the corresponding source data file on the source storage system.

34. (currently amended) A system for migrating one or more data files stored on a source storage device to a target storage device, comprising:

an interface configured to:

receive from a host device a ~~data processing~~ request specifying a data file; and

a processor configured to:

examine a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file; and

copy the source data file from the source storage device to the target storage device, based at least in part on information in the pointer.

35. (currently amended) The system of claim 34, wherein the processor is further configured to:

retrieve requested data from the copied data file[[,]] ; and

provides the requested data to the host device.

36. (original) The system of claim 34, wherein the source data file is stored in a file volume on the source storage device.

37. (original) The system of claim 34, wherein the stub file is stored in a file volume on the target storage device.

38. (original) The system of claim 34, wherein the target storage device comprises a NAS filer.

39. (original) The system of claim 34, wherein the target storage device comprises a file server.

40. (currently amended) The system of claim 34, wherein the ~~data processing~~ request is received from the host device via a network.

41. (currently amended) The system of claim 34, wherein the pointer identifies a logical location of the source data file in ~~the~~ a source file volume stored on the storage device.

42. (currently amended) The system of claim 34, wherein the pointer identifies a physical location of the source data file on the source storage ~~system~~ device.

43. (previously presented) The system of claim 34, wherein the processor is further configured to:

replace the stub file with the copied data file.

44. (currently amended) A system for migrating one or more data files stored on a source storage device to a target storage device, comprising:

an interface configured to:

receive from a host device a ~~data-processing~~ request specifying a data file; and

a processor configured to:

examine a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file;

determine a size of the source data file, and

copy the source data file from the source storage device to the target storage device based at least in part on information in the pointer and on the size of the source data file;
~~if the size of the source data file does not exceed a predetermined limit.~~

45. (original) The system of claim 44, wherein the source data file is stored in a file volume on the source storage device.

46. (original) The system of claim 44, wherein the stub file is stored in a file volume on the target storage device.

47. (original) The system of claim 44, wherein the target storage device comprises a NAS filer.

48. (original) The system of claim 44, wherein the target storage device comprises a file server.

49. (currently amended) The system of claim 44, wherein the ~~data-processing~~ request is received from the host device via a network.

50. (currently amended) The system of claim 44, wherein the pointer identifies a logical location of the source data file in a source file volume stored on the source file volume storage device.

51. (currently amended) The system of claim 44, wherein the pointer identifies a physical location of the source data file on the source storage ~~system~~ device.

52. (currently amended) A system for migrating one or more data files stored on a source storage device, to a target storage device, comprising:

a target storage device configured to store data files;

a source storage device configured to store data files;

at least one processor configured to:

store in the target storage device a plurality of target data files corresponding respectively to respective ones of a plurality of source data files stored in the source storage device;

store in each respective target data file information identifying the corresponding source data file;

activate a migration procedure to copy data from the source storage device to the target storage device, after target data files have been stored for all source data files in the plurality; and

an interface configured to:

receive from a host device a ~~data-processing~~ request specifying a data file, while the migration procedure is executing; and

a wherein the at least one processor is further configured to:

examine ~~a stub~~, in a target data file stored on the target storage device that corresponds corresponding to the specified data file, ~~wherein the stub file contains a pointer selected information identifying a source data file stored on the source storage device that corresponds to the specified data file;~~

retrieve requested data ~~from the source data file;~~ and

provide the requested data to the host device.

53. (original) The system of claim 52, wherein the source data file is stored in a file volume on the source storage device.

54. (currently amended) The system of claim 52, wherein the ~~stub~~ target data file is stored in a file volume on the target storage device.

55. (original) The system of claim 52, wherein the target storage device comprises a NAS filer.

56. (original) The system of claim 52, wherein the target storage device comprises a file server.

57. (currently amended) The system of claim 52, wherein the ~~data processing~~ request is received from the host device via a network.

58. (currently amended) The system of claim 52, wherein the ~~pointer~~ selected information in a respective target data file identifies a logical location of the corresponding source data file in a source file volume on the source storage device.

59. (currently amended) The system of claim 52, wherein the ~~pointer~~ selected information in a target data file identifies a physical location of the corresponding source data file on the source storage system.

60. (currently amended) A system for migrating one or more data files stored on a source storage device, to a target storage device, comprising:

a target storage device configured to store data files;

a source storage device configured to store data files;

a at least one processor configured to:

generate a target file directory in the target storage device based on a source file directory associated with a set of source data files stored in the source storage device;

store in the target storage device a respective target data file corresponding to each respective source data file in the set;

store in each respective target data file first information identifying the corresponding source data file; and

an interface configured to:

receive from a host device a request specifying a data file;

wherein the at least one processor is further configured to:

copy from the source storage device to the target storage device second information concerning rights of users to access the source data files;

access a target data file stored on the target storage device, wherein the target file is a stub file that contains a pointer identifying a source data file stored on the source storage device corresponding to the specified data file;

examine selected information in the accessed target data file identifying a source data file; and

copy the identified source data file to the target storage device.

61. (original) The system of claim 60, wherein the source data file is stored in a file volume on the source storage device.

62. (currently amended) The system of claim 60, wherein the ~~stub~~ target data file is stored in a file volume on the target storage device.

63. (original) The system of claim 60, wherein the target storage device comprises a NAS filer.

64. (original) The system of claim 60, wherein the target storage device comprises a file server.

65. (currently amended) The system of claim 60, wherein the ~~pointer~~ first information in a respective target data file identifies a logical location of the corresponding source data file in a source file volume stored on the source storage device.

66. (currently amended) The system of claim 60, wherein the ~~pointer~~ first information in a respective target data file identifies a physical location of the corresponding source data file on the source storage system.

67. (currently amended) A method for migrating one or more data files stored in a source storage ~~system device~~ in direct communications with a host device to a target storage ~~system device~~, comprising:

storing, in a target storage ~~system device~~, a ~~stub~~ target data file comprising information identifying a location of a the source data file stored in a the source storage system device;

discontinuing direct communications between the host device and the source storage device;

receiving from a host device a ~~data processing~~ second request specifying the ~~stub~~ target data file;

examining the information in the ~~stub~~ target data file, in response to the second request;

accessing the source data file based on the information; and

copying the accessed source data file from the source storage ~~system~~ device to the target storage ~~system~~ device.

68. (currently amended) The method of claim 67, further comprising:
retrieving requested data from the copy of the accessed source data file; and
providing the requested data to the host device, in response to the ~~data processing~~ second request.

69. (currently amended) The method of claim 67, comprising:
copying the accessed source data file from the source storage ~~system~~ device to the target storage ~~system~~ device, only if the size of the accessed source data file does not exceed a predetermined limit.

70. (currently amended) The method of claim 67, further comprising:
generating in the target storage ~~system~~ device a target file directory corresponding to a source file directory stored in the source storage ~~system~~ device.

71. (cancelled) ~~The method of claim 67, further comprising:~~
~~receiving from the host, by the source storage system, via a first communication~~
~~connection between the source storage system and the host, a first data processing request~~
~~specifying the source data file;~~
~~disconnecting the source storage system from the host;~~
~~establishing a second communication connection between the target storage system and~~
~~the host; and~~
~~receiving from the host, by the target storage system, via the second communication~~
~~connection, a second data processing request specifying the stub file.~~

72. (currently amended) A system for migrating one or more data files stored on a source storage system to a target storage system, comprising:
one or more storage systems configured to:
store, in a target storage system, a target data file that corresponds to a source data file stored in a source storage system;
copy information concerning rights of users to access the source file from the source storage system to the target storage system;
at least one interface configured to:
receive from a host device a ~~data processing~~ request specifying the target data file; and
at least one processor configured to:

examine information in the target data file identifying the corresponding source data file, in response to the request;

access the source data file based on the information; and

copy the accessed source data file from the source storage system to the target storage system.

73. (currently amended) The system of claim 72, wherein the processor is further configured to:

retrieve requested data from the copy of the accessed source data file; and

provide the requested data to the host device, in response to the ~~data processing~~ request.

74. (currently amended) The system of claim 72, wherein the processor is configured to:

copy the accessed source data file from the source storage system to the target storage system, only if the size of the accessed source data file does not exceed a predetermined limit.

75. (previously presented) The system of claim 72, wherein the at least one processor comprises a file server.

76. (currently amended) The method of claim 1, further comprising:

copying data files from the source ~~file~~ storage device to the target ~~file~~ storage device, when sufficient processing resources are available.

77. (currently amended) The method of claim 4, further comprising:

creating ~~the target file volume~~ on the target storage device a target file volume corresponding to a source file volume stored on the source storage device;

copying information concerning rights of users to access the source file volume from the source file volume to the target file volume; and

generating in the target storage device a target file directory corresponding to a source file directory stored in the source storage device.

78. (currently amended) The method of claim 11, further comprising:

retrieving requested data from the copied data file stored in the target storage device, in accordance with the ~~data processing~~ request; and

providing the requested data to the host device.

79. (currently amended) The method of claim 19, further comprising:

copying the identified source data file from the source storage device to the target storage device.

80. (cancelled) ~~The method of claim 1, further comprising:~~

~~storing, on the target storage device, the stub file comprising a pointer identifying the source data file, prior to copying the source data file from the source storage device to the target storage device.~~

81. (new) The method of claim 1, wherein the host device is in direct communication with the source storage device, the method further comprising:

storing, on the target storage device, a first plurality of stub files corresponding to respective ones of a second plurality of source data files stored on the source storage device;

storing, in each respective stub file among the first plurality, a pointer identifying the corresponding source data file; and

discontinuing direct communications between the host device and the source storage device.

82. (new) The method of claim 81, comprising:

receiving from the host device, by the target storage device, the request specifying the data file.

83. (new) The method of claim 82, further comprising:

copying from the source storage device to the target storage device second information concerning rights of users to access the source data files among the second plurality.

84. (new) The method of claim 83, further comprising:

activating a migration procedure to copy data from the source storage device to the target storage device.

85. (new) The method of claim 84, comprising:

determining a size of the source data file; and

if the size of the source data file does not exceed a predetermined limit:

copying the source data file from the source storage device to the target storage device;

retrieving requested data from the copied data file; and

providing the requested data to the host device;

86. (new) The method of claim 84, comprising:

determining a size of the source data file; and

if the size of the source data file exceeds the predetermined limit:

retrieving requested data from the source data file; and

providing the requested data to the host device.

87. (new) The method of claim 11, comprising:

copying the source data file from the source storage device to the target storage device if the size of the source data file does not exceed a predetermined limit.

88. (new) The method of claim 19, comprising:

activating a migration procedure to copy source data files from the source storage device to locations of corresponding target data files.

89. (new) The method of claim 19, further comprising:

pausing the migration procedure after the request is received, based at least in part on an availability of resources; and

retrieving the requested data during the pause from a selected data file.

90. (new) A method for migrating one or more data files stored on a source storage device storing a plurality of source data files, to a target storage device, comprising:

storing in a target storage device a plurality of target data files corresponding respectively to respective ones of a plurality of source data files stored in a source storage device;

storing in each respective target data file information identifying the corresponding source data file; and

activating a migration procedure to copy source data files from the source storage device to locations of the corresponding target data files in the target storage device.

91. (new) The method of claim 27, wherein the source file directory is associated with a source file volume stored on the source storage device, the method further comprising:

copying from the source storage device to the target storage device second information concerning rights of users to access the source data files, only if the source file volume is the first file volume copied from the source storage device to the target storage device.